UCL DEPARTMENT OF ANTHROPOLOGY
GLOBAL SOCIAL MEDIA IMPACT STUDY

Desiring mobiles, desiring education: Mobile phones and families in a rural Chinese Town

Tom McDonald
University College London

In: Mobile Communication and the Family – Asian Experiences in Technology Domestication. (2016)
Editors: Lim SS. Springer, Dordrecht.

The final, definitive version of this chapter is published by Springer and is available at:
http://www.springer.com/gp/book/9789401774390

Global Social Media Impact Study

European Research Council
Established by the European Commission

Abstract: This chapter draws on ethnographic data to examine the relationship between mobile communication technologies (especially mobile phones) and learning in a small rural town in north China. Building on a wide body of literature that emphasises the enduring importance of education within Chinese culture, this chapter demonstrates how contemporary attitudes towards learning become constructed and expressed through mobile phone use. The chapter illustrates how most rural parents regard mobile phones as having an adverse impact on their offspring's educational achievement, and are keen to limit such use. Young people nevertheless continue to find ways of accessing and using mobile phones, including creatively appropriating such devices for their own (formal and informal) learning. The chapter calls for greater consideration of the multiple domains of society that such technologies cut across – including school, family, and elsewhere – in order to expose the specific instances where mobile telecommunications interact with educational ideals.

Keywords: China, education, mobile phones, rural, family

The shop display of the China Unicom mobile store that lay on the narrow high street of Anshan Town,[1] the small marketplace hub of a rural ward located in north China's Shandong province, differed remarkably from those found in commercial zones of large Chinese cities. While comparable mobile network outlets in nearby metropoles were replete with the latest smartphones, eager sales attendants and colourful advertising, Anshan Town's China Unicom store was a plain, dilapidated whitewashed building, the shop window of which featured a couple of lonely A3-sized advertising posters promoting a 3G SIM card package that, despite being official China Unicom marketing materials, had obviously remained in the window for such a long time so as to become faded through exposure to the strong summer sun. However, these posters were dwarfed by a two-metre-tall sign attached to the front of the shop, which read, in enormous white characters on an auspicious red background,

> **Book Reading Youth!**
> Electronic education.
> Used by experts and leaders.
> Reading machines.

1 In order to protect the anonymity of the participants of this research, the names of all individuals, businesses and places (below city level) have been altered in this chapter.

Student computers.
Student tablet computers.

It initially seemed senseless that the store, being an official outlet of one of China's largest phone networks, should place so much emphasis on promoting these 'study machines' rather than the sale of mobile phones, when the potential market for study machines was so much smaller than that for mobile phones. Furthermore, the store made little profit from selling these machines (few of which used China Unicom's mobile network) in comparison to the 12- to 24-month subscription deals associated with the purchase of many mobile phones, which obliged customers to return to the store at regular intervals in order to 'top up' with extra credit.[2] However, the longer I spent in Anshan Town the more I came to realise that the prominence that the store gave to these study machines embodied a wider set of concerns held by townsfolk, which related to the position of mobile communications within the family and their relationship to education. The advertising appeared to be motivated less by an interest in actually selling these devices, and more by a desire to allay concerns that the store, by providing mobile phones and broadband internet connections,[3] was in some sense responsible for providing young people with technologies that were seen to have a detrimental effect on their educational achievement.

By examining the attitudes of local families towards mobile phones and learning, this chapter contributes to the volume by demonstrating how ideals regarding education, which is a pressing concern in Chinese society, are often evident in the way in which mobile communications were appropriated and managed within families. In addition, by specifically focusing on mobile communications, this chapter will contribute to a more nuanced understanding of the centrality of education to Chinese life. By employing an ethnographic

2 The standard model of mobile phone subscription in China is a hybrid contract/pay-as-you-go agreement. Subscribers pay an up-front joining fee (which may include the provision of a new handset). During the initial contract period they receive a small monthly credit rebate alongside their data and call allowance, on the provision that their account contains sufficient credit to cover the monthly fee.

3 Until August 2014, China Unicom was the only telecoms provider to offer broadband internet service to households within the township.

approach that considers how young people's actual practices of mobile phone use fit amongst the wider context of Anshan Town society, it becomes possible to examine how attitudes towards education are constructed and expressed through mobile phone use. Through this methodology the chapter aims to provide a novel perspective on how these particular technologies mediate specific desires and aspirations within the social life of families, and likewise how mobile phones are used to both think through and implement such ideals.

The remainder of this chapter is made up of four sections. I begin with a brief literature review, which will explain the foundations of the enduring cultural importance of education within Chinese culture, setting this against the rapid emergence of mobile communication technologies. The second section will discuss the broad range of methodologies, ethnographic and otherwise, that were employed in order to shed light on how educational ideals interacted with mobile technologies. The third section of this chapter analyses the results of this research, discussing commonly held ideals regarding mobile phones and their perceived negative effects on the education of middle-school students; aspirations and actions directed towards accessing mobile phones in the face of such discourse; and how young people in the town creatively appropriate mobile phones for their own learning. The chapter concludes by contending that an ethnographic approach to understanding mobile technology use allows consideration of the overlapping realms of society that such technologies traverse – including school, family, and elsewhere – in order to uncover the specific moments where mobile telecommunications coalesce with educational ideals.

Literature review: The importance of education and the emergence of mobile technologies

This literature review comprises two sections. In the first section, I discuss a broad body of

literature emphasising the importance of education in Chinese culture, before showing how recent theoretical approaches to Chinese education that allow for consideration of broader context provide better frameworks for understanding the impact of mobile communication technologies and learning. The second section focuses on the growth of mobile communication technologies in China, and the approaches and issues this raises.

Education in China: towards considering the broader learning context

Chinese society is frequently characterised as having long placed high value upon education, the acquisition of which is viewed by its members as being essential for social success (Hau and Salili, 1996; Stevenson and Lee, 1996). Authors have noted that China's family planning policy has further increased the burden on large numbers of only-children to achieve high levels of attainment (Fong, 2004; Li & Li 2010). Parents feel that their offspring's academic accomplishment will help to ensure a comfortable life for their children (Kipnis, 2011), while also guaranteeing that their offspring have the ability to fulfil their filial obligation to care for their parents when they reach old-age (Stafford, 2000a).

The strong desire for education is felt both in urban and rural Chinese settings. Kipnis' (2011) ethnographic study of the education system within Zouping county, also in Shandong province, offers a convincing explanation for the strong emphasis on schooling within Chinese society. Outlining his theory of 'educational desire', Kipnis shows how the importance that Chinese people attach to education has wide-ranging effects upon social organisation. He reports that all parents of school-aged children he surveyed desired for their child to be admitted to university. He noted that this aspiration persisted despite the fact that the costs associated with university education far outweighed the short-term economic gains. While newly graduated university students typically faced bleak job prospects and low starting salaries, their peers who

had chosen to obtain vocational qualifications at colleges (e.g. nursing, electrical engineering, etc.) could expect to find a fairly paid job upon graduation with relative ease. This disparity underlined the fact that parent's wishes to send their children to university were often not the based on rational economic reasoning.

Kipnis' (2011) observations regarding the emphasis the Chinese education system places on exemplary cases, whether these be 'model' teachers, students, essays, handwriting or even schools themselves, is particularly relevant here. A successful student might be one who can replicate Chinese characters with perfect form, or who is able to memorise and recall large amounts of information in order to produce a 'model' answer during examination. This emphasis on perfectly emulating exemplars requires that students devote considerable time and effort to studying and is of particular importance when investigating the explosion in mobile technologies within Chinese society, which, as this paper will explain, is widely considered to be detrimental to such efforts. Notably, Kipnis' otherwise thorough ethnography largely neglects to discuss the influence of mobile phones on learning, given that it was a major concern amongst my own friends in Anshan Town.

Stafford (2000b, p. 6), in his ethnography of education and child development within Chinese society[4], rightly comments that simply claiming that 'education is important' for Chinese people constitutes a rather pedestrian statement. In contrast, he favours that 'education' ought not to be seen as a universal category. Stafford acknowledges the rote learning and copying of Chinese characters is often viewed as being perhaps the definitive feature of Chinese education, before using his ethnography to build on claims by other anthropologists that challenge the distinction between non-formal and formal systems of learning (Borofsky, 1987; Akinnaso, 1992). Stafford's approach favours looking at learning as a part of life, making use of Sperber

4 Stafford's (2000b) ethnography draws on research conducted in both a Taiwanese fishing village and a village in the Heilongjiang province of north-east mainland China.

and Wilson's (1995) concept of 'drawing attention to', which holds that young people's understanding of the world is formed at key moments in everyday life when specific practices focus their attention on phenomena that are marked out as being especially important.

This chapter does not intend to focus on one definition of education at the expense of another. Rather, the aim here is to acknowledge that these contrasting definitions encompass such a broad range of activities that they make it possible to see mobile communication within the family as being related to and having an impact on education itself. Nonetheless, it ought to be acknowledged that for most people in Anshan Town, 'education' (*jiaoyu*) typically refers to a defined set of formal and informal institutions, especially those related to schooling children and young people, and that this frequently intersects with other aspects of everyday life, such as mobile phone use.

Emerging mobile technologies in China: approaches and issues

The development of mobile devices, particularly mobile phones, has arguably been one of the key transformative agents in Chinese society in the last 15 years. The country has experienced an explosion in mobile phone ownership, with mobiles effectively leapfrogging landlines to become the *de rigeur* communication device for swathes of the population. A survey by the Pew Research Center (2014:2) reported that mobile phone ownership amongst its Chinese sample (which was limited to adults and acknowledged as being 'disproportionately urban') stood at 95 per cent, which was the highest ownership rate of all the emerging countries in their survey. Of those sampled, 37 per cent reported owning a smartphone, which again placed China among the highest of all the developing countries compared in the study. Likewise, a separate survey (Nielsen Company, 2013) focusing on mobile phone usage amongst Chinese youth (between 15 and 24 years of age) recorded a smartphone ownership rate of 82 per cent, compared to a 14 per

cent rate for the ownership of standard feature phones.[5] This represents a radical transition when compared to a report published by the same company only three years earlier (Nielsen Company, 2010), which placed smartphone usage at only 29 per cent, in contrast with 71 per cent for feature phones; however, this survey was again limited to Chinese cities. Despite the fact that the above reports largely ignore rural populations like those of Anshan Town, the figures are nonetheless significant in drawing attention to the rapidly growing importance of mobile phones (and particularly smartphones) within urban Chinese life, and highlight the need to understand whether such changes are also occurring in rural China.

The extent of the growth of smartphone use within China is also highlighted in a CNNIC (2014) report, which shows a dramatic year-on-year increase in the number of people in China who use mobile phones to access the internet, from 50.4 million in 2007 (24 per cent of total internet users) to over 500 million in 2013 (81 per cent of total internet users). The report also states that the number of users of the 3G mobile network reached 386 million by November 2013, which represented an increase of over 154 million compared to in the preceding 12 months.

While macro-level data such as nationally collected statistical surveys provide useful indicators of broad trends, such statistics offer little insight into how these transformations impact upon people's everyday lives, although there exist several theoretical models aimed at facilitating such an understanding. This chapter avoids highly deterministic frameworks for explaining the adoption of new Information Communication Technologies (ICTs) (Davis, 1989; Rogers, 1995) in favour of models that foreground the agency of individuals in appropriating technologies into their lives. One such model is the theory of domestication (Silverstone, 1994; Silverstone & Haddon, 1996; Silverstone, Hirsch, & Morley, 1992; Silverstone, Morley, Dahlberg,

5 The term 'feature phone' describes low-end phones with limited capabilities such as voice calls and SMS.

& Livingstone, 1989), whose focus on the home and family makes it particularly apt in this chapter, albeit with the added complication that although the use of such devices is an issue of concern for families, their portable nature means their use often occurs outside the physical confines of the house itself. Similarly, ethnographic approaches have foregrounded the importance of illustrating the specificity of the cultural contexts in which new ICTs are adopted (Miller and Slater 2000; Horst and Miller 2006).

Bray (2013, p. 189) calls for a focus on human habits and practices and how they become melded with these new technologies, arguing that increased attention ought to be paid not only to technologies but especially 'to the technological repertoires associated with social roles, and to the skills and operational sequences involved in significant social activities or transactions', as a means to understand the moral and ethical aspects of particular economies.

Lim (2008) posits that ICTs themselves have become an important symbol of consumerism, especially in the case of mobile phones, owing to their conspicuous portability. Likewise, both Gamble (2003) and Qiu (2009) note the presence of a particular stratum of early mobile phone adopters, who made their status overt by carrying large brick-like phones (known as *dageda*) that their work-units[6] purchased for them. Today, the availability of cheap domestic brands of smartphones mean they have become commonplace for adults and young people throughout urban China.

Lim's (2008) research on technology domestication amongst Asian families is particularly useful in showing how consideration of mobile phone use within families can contribute to an understanding of the relationship between mobile phones and education. She notes that amongst the Beijing and Shanghai families in her survey, children would frequently make use of mobile phones and MP3 players while travelling between school and home, but that these items were

6 'Work unit' is the term used to describe the place of employment in the People's Republic of China. Qiu (2009) notes that many of the original users of *dageda* where elites employed in key work units.

banned within school. Lim also notes that parents would use the phones bought for their children as 'surveillance' devices, frequently calling their children in order to establish their whereabouts, particularly as they moved between school and home. Lim (2008) also noted a strong parental desire to control what were felt to be diversions from education, especially ICTs that were the source of entertainment. In this way, Lim's research focuses more on the use of the internet, computers and television by families than mobile communications technologies, as these were (at the time of Lim's fieldwork) the main conduits of entertainment. However, the enormous increase in smartphone functionality and usage within China in recent years has changed the status of the mobile phone, and therefore the information presented in this chapter is intended to contribute to a more up-to-date understanding of the mobile phone within family life.

There is a growing body of literature on how parents manage their children's ICT use. A key theme is choosing where ICTs are placed within the home (Flynn, 2003; Lemor, 2006; McDonald, 2015), although little is written on mobile communication technologies in this regard. Lim and Soon (2010) note how management of offspring's internet use is frequently a gendered task, with mothers in many different cultural contexts tending to play a bigger role in the supervision of ICT use than fathers, while highlighting the lack of such studies in the Asian context. In this connection, and more specifically focussed on mobile phones, Ito (2005) notes how Japanese mothers found it difficult to accept the private nature of their offspring's mobile use, finding it easier to simply ban their children from using mobile phones.

This literature review has focused on two opposing trends: first, the enduring importance of education within Chinese society, which is particularly apparent in the emphasis on exemplary models and examination; and second, the rapid emergence of mobile phones as one of the main communication tools within Chinese society. It is the interaction of these two trends, relatively

unstudied in the context of rural China, which this chapter hopes to illuminate.

Methodology

The findings presented in this chapter stem from 15 months of ethnographic fieldwork that was conducted in Anshan Town between April 2013 and August 2014, which formed part of a larger comparative project called the Global Social Media Impact Study (www.ucl.ac.uk/global-social-media). During the research period I lived in a village on the edge of Anshan Town, immersing myself in the social life of the surrounding area. I was aided in this respect by my own advanced level of written and spoken Chinese, and also through the prior experience of living for 18 months in a medium sized county-town in a remote part of south-west China as part of my earlier PhD research (McDonald 2013). This ethnography was combined with several more structured research/data collection methods, including extended recorded interviews, detailed questionnaires aimed at adults within the fieldsite (n=119), and simplified, broader versions for young people in the local middle school (n=312). A follow-up questionnaire was also completed in the final month of fieldwork (n=175). While the original study encompassed a wide variety of persons from all age ranges, owing to space concerns this chapter focuses only on middle school students (the town does not have a high school or vocational college). Middle school is particularly important because achievement in the middle school examinations (*zhongkao*) dictates whether most students go on to either high school (typically leading to university), or to vocational college (leading to paid employment).

General ethnographic observations were recorded either in notebooks or on a computer/smartphone and subsequently developed into longer-form field notes, which were stored in a computer database to allow classification of individual notes. Face-to-face interviews were typically conducted in standard Chinese (*putonghua*), although some respondents preferred

to reply to my questions in local Shandong dialect. During the initial three months of fieldwork, I was joined by two Chinese nationality Master's students from Minzu University of China in Beijing, who were able to repeat and clarify participants' responses to me in standard Chinese when I had trouble understanding. In later stages of the fieldwork I was able to rely more on my growing knowledge of the local dialect and the help of several local research assistants. Recorded interviews were subsequently transcribed into Chinese characters remotely by a team of students in Beijing, at which point English language keywords were added to many of the responses in order to enable searching of the transcripts via computer. Questionnaire data, collected in homes, schools, workplaces and in public places, were manually inputted into a spreadsheet. This qualitative data was later subjected to further analysis using SPSS.

This approach rejects what Bernard (2006, p.viii) describes as the 'pernicious distinction' between quantitative and qualitative data. The depth of understanding that comes from ethnographic engagement and the opportunity it provides to observe specific practices of people's ICT use (see also McDonald, 2015) was merged with interview data that provided insight into people's accounts of such behaviours. Statistical data was also incorporated, on the occasions when it helped to infer whether broader significance that could be attached to individual practices, or accounts of such practices.

Anshan Town was selected as a fieldsite because it satisfied a number of requirements imposed by the larger comparative project of which this research is a part. The town was small in size, with official figures from 2011 placing the population of the entire township at around 32,000, and the population of the town itself at 6,000.[7] Although the township is predominantly rural, there existed a small number of factories within the area that manufactured pressurised heating vessels for residential heating systems providing an important stimulus to the town's

7 In this context 'the town' refers to the small town seat and four villages that border it, which taken together. form a contiguous built-up settlement of around 0.6 square kilometres.

economy. While by no means wealthy, the vast majority of people within the town and surrounding villages reported having experienced notable improvements in living standards since the start of the reform era, and particularly during the last decade. Anshan Town's growing wealth, combined with the falling cost of smartphone and feature phone ownership, meant that for many people, possessing a mobile communication device was an affordable reality. As such, Anshan Town offered an ideal fieldsite in which to observe how communication technologies were transforming rural Chinese family life.

Discussion

The multiple intersections between mobile phones and education were observed on many occasions during fieldwork. These occasions of convergence can be separated into three main categories, which while not exhaustive, provide a useful analytical framework for understanding the main types of convergence between mobile communication and education. The first is the level of discourse, which refers to an established narrative articulated by parents (but also by significant numbers of students themselves) that focused on the negative effects of mobile phones on education. The second category, which largely acted in opposition to the anti-mobile discourse, resulted from the desires of young people to access mobile phones and their tactics – largely directed towards other family members – for realising such desires. The third aspect reflects the inventive ways in which young people *actually* used mobile phones for educational ends, some of which were plainly supportive of formal educational goals, while others, though contributing to young people's learning were less immediately recognised by parents or students themselves as being educational. The following sections will emphasise how mobile phone purchase and use was never an entirely individual choice; rather, each of these categories, shows how the whole family became implicated in issues of mobile phone appropriation, issues that

often included assessing and understanding the complex relationships between mobile phones and education.

Discourse: mobile phones as the antithesis of education

The presence of an 'educational desire' (Kipnis, 2011, p. 1–2), a near-universal preference amongst Chinese parents of school-age children that their offspring would eventually attend university, was especially pronounced in Anshan Town, one that, in addition to being expressed verbally, was also physically and institutionally manifest in multiple ways around town. Much of a child's life was spent within the classroom. In order to satisfy parents' desire for increased study time, the town's middle school offered complimentary early morning and late evening supervised 'self-study' classes outside of normal lesson times. As far as I was aware, all students regularly attended these sessions, prolonging the typical school day from eight hours to over 14 hours (6:30am–8:40pm). The summer holidays provided no respite for many children, and private tuition classes (*fudao ban*) were offered in temporarily converted homes, taught by university students on vacation. Many parents seemed willing to spend considerable amounts of money on such tuition (see also Anagnost, 1997).

These instances suggest that a universal educational desire similar to that described by Kipnis (2011) was especially strongly felt amongst parents of school-age children in Anshan Town. Furthermore, almost every single parent whom I spoke to throughout the course of the research believed that mobile phones (and, more broadly, the internet, gaming and social media) had an adverse effect on their child's study. This position appeared to be largely independent of any actual evidence, and instead was often rooted in select anecdotal evidence based on their own experience or that of other families within the town, rather than third-party scientific assessment.

It was also clear that the widespread discourse concerning the relationship between mobile phone use and academic study was reproduced not only by parents but also by educational institutions themselves (largely staffed by teachers with children of their own), which played an active role in disseminating the assertion that mobile phones had a negative impact on educational progression. This intolerance was manifested in a number of ways, the most conspicuous and severe of which was the banning of mobile phones from school grounds. One middle-school pupil explained to me that students who violated the rules by choosing to bring their phones into school could expect to have them confiscated. The manager of one of the town's private tuition schools that operated during the summer holidays provided an impassioned account of why he viewed confiscating mobile phones as necessary deterrent:

> I taught the third grade[8] of middle school for a while. On one occasion, I confiscated five or six mobile phones. When they're using phones they're not doing anything else, just chatting on QQ[9], reading [online short stories]… Of course, in China, students communicating with each other more is a good thing. But in China, with this kind of education for the purpose of examinations, you *must* study; communication is put in a secondary position. Because each year there is *just one chance* in the exam. If you don't pass the exam, you can only enter [manual] employment, and it will be a very bad environment, and you won't have any good way out. But in China, if you can pass the exam and get into a [good] university… then you can find some dignified work. Your salary won't be very high, but you will sit in an office, under the breeze of the air conditioning.

The teacher's account, while acknowledging the communicative potential of the mobile phone, simultaneously casts such devices as a barrier to his students' exam success, preventing them from enjoying a comfortable, safe and dignified life. Confiscation is seen as a necessary deterrent intended for the child's own benefit, so as to cultivate proper habits that facilitate effective learning.

Another middle-school student explained to me that it was not uncommon for mobile

8 Third grade middle-school students are approximately 14 years of age.
9 QQ is a popular Chinese social networking platform. Surveys in Anshan Town indicated that for townsfolk it had the highest rate of account ownership, length of use and estimated time spent online daily of all social networks. QQ was especially popular among the town's school children.

phones confiscated by teachers to be withheld from the child until the end of term, or even until the end of the school year. Such measures did not appear to provoke major concern among parents; instead, the school's efforts to prohibit the use of mobile phones by students not only acted in tandem with parental reservations regarding the use of mobile phones, but also reassured parents that their assertions were correct. That being said, a significant minority (35 per cent) of phone-owning middle-school children surveyed indicated that they still bought their phones to school.

Despite young people's desire to use and own mobile phones, the notion that mobile phones could distract from one's studies had, to a certain extent, been internalised by some young people within the town. Our survey of middle-school students revealed that 64 per cent felt that having access to a mobile phone did indeed distract them from their study.

The draconian measure of banning mobile phones from the classroom was especially effective because school schedules, which filled close to the entirety of a student's typical week with lessons and homework, left students with extremely few instances when mobile phone use was permitted (see Table 1). For example, one young male student in the third grade of middle school I spoke to told me that he owned a cheap feature phone that he used primarily for calling his mother during the lunch break. In a different example, a female student in the third grade who lived in one of the villages in the countryside surrounding the town explained why, despite having a computer at home, she had to ask her older sister, who was in college and had a mobile phone to help maintain her online profile: 'I have no time, because I am always studying… I only have time at the weekends. During class times playing on phones isn't allowed.' Although many of the people viewing her online profile were her classmates who themselves facing similar time restrictions, a secondary motivation for staying online was that simply spending time logged in to QQ would also help to increase the ranking of her account.

In contrast to the town's middle school pupils, students attending college and university in nearby cities, such as the older sister mentioned above, were generally tacitly permitted to use mobile phones during class times. Middle and high school students complaining about the lack of opportunities to access the internet were commonplace during my fieldwork. Although it initially seemed incongruous to hear rural middle-school students talking of long working hours in the manner one might expect of city bankers, nonetheless generally students took these pressures in their stride.

Perhaps most telling in relation to this discourse on the perceived negative effects of mobile phones on education were the findings from the section of the survey which asked respondents to indicate in which quartile of the class they ranked in terms of academic results, and also whether they possessed a mobile phone. It should be noted that Chinese schools frequently rank students within the same class group throughout each academic year through examinations and assessment exercises, so most students have a fairly clear idea of how they compare to their classmates. The highest distribution of students occupied the top quartile of the class, with 29 per cent of all students surveyed indicating that they fell within this range (see Table 2). The distribution of students decreased successively as the academic ranking of the quartiles became lower, suggesting that students with comparatively poorer results than their peers preferred to select the 'would rather not say' option than share their ranking. The roughly even distribution of students after taking into account the 'would rather not say' option suggests the self-reporting of students' academic position to be largely reliable. Of key interest here is the fact that when students' class position was correlated against whether they owned a mobile phone, it was discovered that there existed only marginally lower mobile phone ownership rates amongst higher-ranking school children (Table 3). This suggests that, for the students sampled, claims of a correlation between mobile phone ownership and poor academic results are weak at

best.

Mobile desires vs. educational desires

This dominant discourse against mobile phone use in educational contexts, and the prohibitions associated with it, emerged in response to a genuine desire amongst young people in Anshan Town to be able to own and use mobile phones. This desire was motivated by a number of factors. Although some of these reasons were connected to education, many were not necessarily immediately related to academic endeavour.

As part of the questionnaire, phone-owning middle-school students in Anshan Town were asked to rank their uses of their mobile phones in order of importance. The vast majority of respondents said the most important use was to access the internet (see Table 4). The second most important use of the mobile phone for students was as an alarm clock, reflecting the difficulty many students faced in rising for the 6:30am start of the school day. The least important functions of the mobile phone, according to the students, were sending traditional text messages (now largely replaced by a combination of QQ Instant Messenger and WeChat) and studying.

Students in Anshan Town adopted a wide range of strategies to increase opportunities for internet use, especially via mobile phones. Although broadband service was available throughout most of the township, including in more remote villages, according to informal conversation with the manager of the town's China Unicom store, only around one-third of households had it installed. This was largely due to the fact that 610 RMB (approximately $99 USD) annual broadband subscription[10] was judged to be an unnecessary expense by most families. By contrast, many (predominantly male) household heads viewed the purchase of a 3G

[10] Price correct as of May 2013.

smartphone as a legitimate expense, even if they themselves did not typically use the internet.

The ownership of these mobile phones within households by parents or adult siblings offered many young people in the town the opportunity to access the internet, with some 40 per cent of middle-school students reporting accessing the internet mainly through mobile phones. One such student was a young girl from the third grade. Her father prohibited her from owning a mobile phone, and as the family did not have a broadband connection in their home, her main method of accessing the internet was by borrowing her father's phone, and "helping him to use the bandwidth" (*bang ta yong liuliang*). This refers to the fact that most mobile subscriptions include a set amount of free calls and bandwidth; however, it is typically the case that middle-aged people prefer making telephone calls to using the internet, and hence use little (if any) bandwidth. In this way, young people's 'help' serves as a justification for their internet access, made under the pretext of optimising their parents' excess resources, thereby yielding greater value from their expenses.

Educational ingenuity

While acknowledging that the majority of mobile phone use among the young people of Anshan Town appeared to have little to do with education there remained instances where young people's appropriation of mobile phones did contribute, in various ways, to their learning. One of the key findings in this regard concerns the way in which students use mobile phones, and more specifically the social media that can be accessed through them, as a means to prolong and expand the social groupings that are created by schools themselves, and to transcend the spatial confines of the school. Central to this is how communication between classmates dominates students' patterns of mobile phone use, and the class group (*ban*) is of particular importance in this respect. A normal class group in Anshan Town's middle school would typically remain in the

same physical classroom for most of the day, with teachers moving between classrooms, and remarkably few occasions in which students were made to work together into parties other than the class group. In sum, the class group appears to be a group of people who often became the basis of enduring friendships. Indeed, I often witnessed 'class group reunions' in the town, where former classmates who were now in their twenties or thirties would meet in order to eat together and socialise.

Access to the internet via mobile phones (and to a lesser extent, via home broadband connections) has provided students with the opportunity to reproduce the classmate group within another space. This is most manifest in the case of 'QQ groups'. QQ includes an instant messaging client that is used throughout China, and although its popularity appears to have waned somewhat with the advent of other social media platforms in the country (i.e. WeChat, Weibo), it remains the main social media platform within Anshan Town, and is especially popular amongst school-aged children. QQ groups permit users to create on-going instant messaging conversations amongst a defined (and usually closed) group of users, of which some have administrator roles and the ability to add or remove other members. School-aged children appear to be very keen to establish these groups, a large number of which are based around class groups, with students asking their classmates to join the group during classes or via direct instant message. The groups are often named after the members' class group number. Several students commented that it was not uncommon for a single class group to have several QQ groups, each set up by a different student, who would act as 'group owner' (*qun zhuren*) for the group in question, and was also able to appoint group administrators *(guanli yuan)*. In effect, these groups seemed to be vying with one another for popularity.

Several students shared that they found the constant messages between the group administrator and their close friends to be especially irritating (*fan*). However, they did not wish

to leave the group for fear that their classmates would take offence. Many explained that they felt the best solution in such a situation was to 'silence' (*pingbi*) the group so that they remained a member but did not receive notifications when new messages were posted. Green and Haddon's (2009, p. 101–105) concept of the 'management of availability' as being of key import in mobile communications is useful here. The authors highlight the popular understanding that 'communicative access to others anytime and anywhere' offered by the mobile phone is seen as 'both desirable and beneficial'. Instead, people practise a process of 'selective sociality' (Fortunati, 2005; Matsuda 2005) managing when and with whom one is available for access.

Despite such annoyances, a significant number of students still felt these QQ groups were useful in that they gave students a forum in which to discuss school-related matters outside of the school itself, although it should be noted that such discussions seemed to form only a minor part of the overall use of QQ groups. These groups were also important in a further sense – many of them continued to provide forums for communication after students graduated from school and the class group ceased to meet regularly.

One aspect of class group-based QQ groups that several students also highlighted as being of importance was their role in facilitating the completion of homework assignments. Much of the homework that students were assigned was in the form of take-home papers, most of which comprised numbered questions with multiple-choice or single-word answers. On several occasions I observed students in their homes obtaining the answers from each other by exchanging messages within the class group-based QQ groups. Students forming their own informal online homework help groups made sense given that many rural parents had only received primary- or middle-school education and thus often found it difficult to help their children with such homework questions. Thus, QQ groups helped students to access a wider network of support.

A further significant implication of the fact that students' activities on mobile phones occurred out of sight of both teachers and parents was that it gave these young people an increased opportunity to chat with each other, and proved central to establishing romantic relationships. Schools prohibited romantic relations between classmates for fear that such relations, like mobile phones themselves, would adversely affect students' study. Most parents also shared the view that relationships amongst school-aged students were problematic. Mobile telecommunications provided a way for young people to engage in romantic relationships that were intimate and yet maintained the physical distance necessary to avoid detection by parents and teachers. One high-school student in Anshan Town told me that he had several different QQ accounts, some of which his parents did not know the password for, so that he was able to chat with girls online without his parents' knowledge. It was (readily) apparent that, faced with these restrictions, students saw mobile phones as a means to speak directly to potential romantic partners without others finding out.

A final noteworthy aspect of young people's appropriation of mobile phones that ought to be considered as educational is that knowing how to use these devices was becoming increasingly important for creating and maintaining social relations. This was especially so for poorer households in the outlying countryside where broadband internet connections at home were rare, and only limited time was given over to access in school. In such cases, mobile phones constituted an important avenue for learning and experimenting with the digital skills that have become steadily more indispensable in contemporary Chinese society.

In this section I have deliberately chosen a loose, anthropological definition of education that extends beyond formal schooling (although some of the strategies discussed above are instructive in this regard), to include the learning and utilisation of social and cultural conventions. This deliberately broad interpretation of education permits consideration of a more

wide-ranging set of implications associated with young people's phone use. In this context, it ought also to be emphasised that the educational uses of mobile phones listed here do not necessarily imply that the students exhibit such defined educational 'intentionality' while using phones. While some practices appear to be clearly linked to learning, with others the connection is somewhat more tenuous. What all of these different behaviours have in common, however, is that they demonstrate young people's ingenuity in appropriating mobile phones for their own ends.

Conclusion: Understanding education through mobile phones

The data presented above illustrate specific ways in which the almost universal educational desire that Kipnis (2011) claimed to be a distinctive feature of Chinese society finds expression in relation to new technologies, such as mobile phones, entering into family life. The discussions expands Kipnis' understanding of educational desire by showing how it can be constituted through an incredibly wide array of objects and phenomena, including mobile communication technologies.

Furthermore, this chapter has demonstrated the tendency for people's attitudes towards ICTs to be informed by their generational position within families. The data revealed a widely-held belief amongst parents of school-aged children that the latter's use of mobile phones has an adverse effect on their study. Furthermore, a smaller (although still significant) amount of school-aged children themselves believed mobile phones were an obstacle to their own educational attainment.

Universal educational desire was compared to the desire for mobile phones among young people in the fieldsite, where young people employed a number of strategies either to gain

temporary access to phones (through borrowing, etc.) or to persuade their parents to gift them phones outright.

The final section of this chapter concentrated on the ways in which phones were actually used for educational purposes by young people, most of which were discerned through ethnographic observation. These included replicating the class group unit outside of school through the use of QQ groups, using mobile phones to engage in prohibited romantic relationships and the acquisition of digital skills.

One of the key conclusions that can be drawn from these three different aspects of mobile phone use is that these technologies have a broad, and often unforeseen, range of impacts. Making moralistic judgements about the consumption of particular technologies does not get one closer to understanding the actual use and effects of such technologies in people's lives (Miller, 2001). Likewise, the findings presented in this paper complicates the prevalent discourse, evident both amongst Anshan Town adults, and more broadly in academic writing, that mobile phones and other new communication technologies necessarily have a negative influence on productivity or diminish our humanity (Turkle, 2014). By examining young people's desires for mobile phones, the techniques and strategies that they use to gain access to such devices, and the inventive ways in which they appropriate mobile phones for educational ends, one comes to see mobile phones in a different light: as a point around which families understand, construct and enact desires for educational achievement for their school-aged children.

Such an approach, which holds that mobile phones are not merely a communication device but also a locus around which ideas and concepts of personal achievement, good parenting and social relationships coalesce, can also help cement a move away from analysis of these ICTs within techno-deterministic or functionalistic frameworks (Davis, 1989; Rogers,

1995), in favour of approaches that focus on the social characteristics of these technologies (Silverstone et al, 1992) and what they *actually* mean to the people who *actually* use them. Furthermore the portability of mobile communication technologies makes them especially important for social sciences research, as their ability to be moved with ease tends to involve them in wider networks of social relations – such as schools or peer groups – than other ICTs which may be confined to the domestic sphere, and can help to challenge bounded concepts of 'home' or 'family'. This makes thinking through these mobile technologies all the more important, as through them it becomes possible to gain insight into the aspirations, relationships and networks that underlie contemporary rural Chinese families.

Acknowledgements

I am incredibly grateful to Elisabetta Costa, Nell Haynes, Daniel Miller, David Jobanputra, Razvan Nicolescu, Jolynna Sinanan, Juliano Spyer, Shriram Venkatraman, Sun Sun Lim and Xinyuan Wang who provided extensive comments on several draft versions of this chapter. I am particularly grateful to Ying Zhang, Zhixian Liu and Yinxue Li from Minzu University of China for their support throughout the fieldwork period. Thanks must go to the people of Anshan Town, especially the staff and students of the town's middle school for their eagerness to help with this project. This research was funded by the European Research Council (ERC Project 2011-AdG-295486 SocNet).

References

Akinnaso, F. N. (1992). Schooling, language and knowledge in literate and nonliterate societies. *Comparative studies in society and history*, *34*, 68-109.

Anagnost, A., 1997. Children and national transcendence in China. In: Lieberthal, K.G., Lim, S.F., Young, E.P. (Eds.), *Constructing China: The Interaction of Culture and Economics*. Centre for Chinese Studies, University of Michigan, Ann Arbour, MI, pp. 195–222.

Bernard, H. R. (2006). *Research methods in anthropology: Qualitative and quantitative approaches* (4th ed.). Oxford: AltaMira Press.

Borofsky, R. (1987). *Making history: Pukapukan and anthropological constructions of knowledge*. Cambridge: Cambridge University Press.

Bray, F. (2013). Tools for Virtuous Action: Technology, Skills and Ordinary Ethics. In C. Stafford (Ed.), *Ordinary Ethics in China* (pp. 175-193). London: Bloomsbury.

China Internet Network Information Center. (2014). Statistical Report on Internet Development in China. Retrieved 20 October 2012, from http://www1.cnnic.cn/IDR/ReportDownloads/201404/U020140417607531610855.pdf

Flynn, B., 2003. Geography of the digital hearth. Information, Communication and Society 6 (4), 551–576.

Fong, V. L. (2004). *Only hope: coming of age under China's one-child policy*. Stanford, CA: Stanford University Press.

Fortunati, L. (2002). Italy: Stereotypes, True and False. In J. E. Katz & M. A. Aakhus (Eds.), *Perpetual Contact: Mobile Communication, Private Talk, Public Performance* (pp. 42-62). Cambridge: Cambridge University Press.

Gamble, J. (2003). *Shanghai in transition: Changing perspectives and social contours of a Chinese metropolis*. London: Routledge.

Green, N. & Haddon, L. (2009). Mobile Communications: An Introduction to New Media. Oxford; New York: Berg.

Hau, K. T., & Salili, F. (1996). Achievement goals and causal attributions of Chinese students. In S. Lau (Ed.), *Growing up the Chinese way* (pp. 121–146). Hong Kong: The Chinese University Press.

Horst, H. A. & Miller, D. (2006). *The cell phone: an anthropology of communication*. Oxford: Berg.

Ito, M., 2005. Mobile phones, Japanese youth, and the re-placement of social contact. In: Ling, R.,

Pedersen, P. E. (Eds.), *Mobile Communications: Renegotiation of the Social Sphere*. Springer, London, pp. 131–148.

Hartmann, M., Punie, Y., Ward, K. (Eds.), Domestication of Media and Technology. Open University Press, Berkshire, pp. 165–184.

Kipnis, A. B. (2011). *Governing educational desire: Culture, politics, and schooling in China*. Chicago, IL: University of Chicago Press.

Lemor, A. M. R. (2006). Making a "home". The domestication of information and communication technologies in single mothers' households. In: T. Berker, M. Hartmann, Y. Punie and K.Ward (Eds.) Domestication of Media and Technologies, pp. 165–84. Maidenhead: Open University Press.

Li, W. & Li, Y. (2010). An Analysis on Social and Cultural Background of the Resistance for China's Education Reform and Academic Pressure. *International Education Studies*, 3(3), 211-215.

Lim, S. S. (2008). Technology domestication in the Asian homestead: Comparing the experiences of middle class families in China and South Korea. *East Asian Science, Technology and Society*, *2*(2), 189-209.

Lim, S. S. & Soon, C. (2010). The influence of social and cultural factors on mothers' domestication of household ICTs – Experiences of Chinese and Korean women. Telematics and Informatics, 27(3), 205-216.

Matsuda, M. (2005). Mobile Communication and Selective Sociality. In M. Ito, D. Okabe, & M. Matsuda (Eds.), *Personal, portable, pedestrian: mobile phones in Japanese life* (pp. 123-142). Cambridge, MA; London: MIT Press.

McDonald, T. N. (2013). *Structures of hosting in a south-western Chinese town* (Doctoral dissertation). UCL (University College London).

McDonald, T. (2015). Affecting relations: Domesticating the internet in a south-western Chinese town. *Information, Communication & Society*, 18(1), 17-31.

Miller, D. (2001). The poverty of morality. *Journal of Consumer Culture*, *1*(2), 225-243.

Miller, D. & Slater, D. (2000). The Internet: An Ethnographic Approach. Oxford: Berg.

Nielsen Company. (2010). Mobile Youth Around the World. http://www.nielsen.com/content/dam/corporate/us/en/reports-downloads/2010-Reports/Nielsen-Mobile-Youth-Around-The-World-Dec-2010.pdf

Nielsen Company. (2013). The Mobile Consumer: A Global Snapshot. http://www.nielsen.com/content/dam/corporate/us/en/reports-downloads/2013%20Reports/Mobile-Consumer-Report-2013.pdf

Pew Research Center. (2014). Emerging Nations Embrace Internet, Mobile Technology. http://www.pewglobal.org/files/2014/02/Pew-Research-Center-Global-Attitudes-Project-Technology-Report-FINAL-February-13-20146.pdf

Qiu, J. L. (2009). *Working-class network society*: *Communication technology and the information have-less in urban China*. Cambridge, MA: The MIT Press.

Silverstone, R. (1994). *Television and everyday life*. London: Routledge.

Silverstone, R., & Haddon, L. (1996). Design and the domestication of information and communication technologies: Technical change and everyday life. In R. Silverstone & R. Mansell (Eds.), *Communication by design: The politics of information and communication technologies* (pp. 44–74). Oxford: Oxford University Press.

Silverstone, R., Hirsch, E., & Morley, D. (1992). Information and communication technologies and the moral economy of the household. In R. Silverstone & E. Hirsch (Eds.), *Consuming technologies: Media and information in domestic spaces* (pp. 15–31). London: Routledge.

Silverstone, R., Morley, D., Dahlberg, A., & Livingstone, S. (1989). *Families, technologies and consumption: The household and information and communication technologies*. CRICT discussion paper. Uxbridge: Centre for Research into Innovation, Culture & Technology.

Sperber, D. & Wilson, D. (1995). *Relevance: Communication and cognition*. Oxford: Blackwell.

Stafford, C. (2000a). Chinese patriliny and the cycles of yang and laiwang. In J. Carsten (Ed.), *Cultures of Relatedness: New Approaches to the Study of Kinship* (pp. 37-54). Cambridge: Cambridge University Press.

Stafford, C. (2000b). *Separation and reunion in modern China*. Cambridge: Cambridge University Press.

Stevenson, H. W., & Lee, S.-Y. (1996). The academic achievement of Chinese students. In M. H. Bond (Ed.), *The handbook of Chinese psychology* (pp. 124–142). Hong Kong: Oxford University Press.

Turkle, S. (2011). *Alone together: why we expect more from technology and less from each other*. New York: Basic Books.

Table 1: Example daily schedule of a second-grade middle-school student

Time	Activity
06:00	Get up. Brush teeth, wash face. Depart for school
06:30	Teacher supervised 'self-study' lesson
07:20	Eat breakfast, clean classroom
08:00	Class group sings song together
08:10	Lesson 1
08:55	Short break
09:05	Lesson 2
09:50	Long break
10:20	Lesson 3
11:05	Short break
11:15	Lesson 4
12:00	Return home. Lunch*
12:50	Return to school. Prepare for lesson
13:20	Clean classroom
13:30	Class group sings song together
13:40	Lesson 5
14:25	Short break
14:35	Lesson 6
15:20	Long break
15:50	Lesson 7
16:35	Short break
16:45	Lesson 8
17:30	Return home. Dinner*
18:00	Return to school. Prepare for self-study
18:30	Short break
18:40	Teacher supervised 'self-study' lesson
19:35	Short break
19:45	Teacher supervised 'self-study' lesson
20:40	School ends. Return home*
22:00	Sleep

** Denotes times when student is at home and is typically permitted to use mobile phone, computer, etc. (if available).*

Table 2: Distribution of middle-school students according to self-reported grade

Self- reported grade	**Frequency**	**Per cent**
Top 25%	87	27.9
25%-50%	57	18.3
50%-75%	31	9.9
Bottom 25%	6	1.9
'Would rather not say'	118	37.8
Missing	13	4.2
Total	**312**	**100.0**

Table 3: Cross tabulation between self-reported grade of middle school students and phone ownership

Self-reported grade	Phone ownership (per cent)		Total share (per cent)
	Own	**Do not own**	
Top 25%	25.7	33.9	29.3
25%-50%	17.4	20.5	18.7
50%-75	13.2	7.1	10.5
Bottom 25%	2.4	1.6	2.0
'Would rather not say'	41.3	37.0	39.5
Total	**100**	**100**	**100**

n=294

Table 4: Responses to question 'What is the main use of your mobile phone?'

Main use	**Frequency**
Internet	105
Alarm clock	84
Calling	65
Texting	31
Studying	31